

From wang!elf.wang.com!ucsd.edu!info-hams-relay Mon Apr 1 18:00:25 1991 remote
from tosspot
Received: by tosspot (1.64/waf)
via UUCP; Mon, 01 Apr 91 21:01:19 EST
for lee
Received: from somewhere by elf.wang.com id aa22842; Mon, 1 Apr 91 18:00:24 GMT
Received: from ucsd.edu by relay1.UU.NET with SMTP
(5.61/UUNET-shadow-mx) id AA10274; Mon, 1 Apr 91 10:18:57 -0500
Received: by ucsd.edu; id AA04458
sendmail 5.64/UCSD-2.1-sun
Mon, 1 Apr 91 04:30:32 -0800 for brian
Received: by ucsd.edu; id AA04453
sendmail 5.64/UCSD-2.1-sun
Mon, 1 Apr 91 04:30:29 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/
lqueue -oi -finfo-hams-relay info-hams-list
Message-Id: <9104011230.AA04453@ucsd.edu>
Date: Mon, 1 Apr 91 04:30:27 PST
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>
Reply-To: Info-Hams@ucsd.edu
Subject: Info-Hams Digest V91 #256
To: Info-Hams@ucsd.edu

Info-Hams Digest Mon, 1 Apr 91 Volume 91 : Issue 256

Today's Topics:

ARRL BULLETIN 17 ARLB017
ATV: AM or FM
DX BULLETIN 15 ARLD015
Looking for info on a specific freq. band
N8EMR_BBS_INFO
SPECIAL BULLETIN 6 ARLX006

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 1 Apr 91 06:01:23 GMT
From: swrinde!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!tut.cis.ohio-
state.edu!n8emr!@ucsd.edu

Subject: ARRL BULLETIN 17 ARLB017
To: info-hams@ucsd.edu

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| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
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ZCZC AG82
QST DE W1AW
ARRL BULLETIN 17 ARLB017
FROM ARRL HEADQUARTERS NEWINGTON CT
MARCH 29, 1991
RELAYED BY KB8NW/OBS & BARF-80 BBS
TO ALL RADIO AMATEURS

Effective April 1, 1991 W1AW voice bulletins will be coming on the air 15 minutes later. Look for the phone bulletins to start at 45 minutes past the hour rather than on the half hour. This change allows more time for the transmission of bulletins on digital modes.

Date: 31 Mar 91 17:47:26 GMT
From: usc!rpi!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!emory!wa4mei!ke4zv!gary@ucsd.edu
Subject: ATV: AM or FM
To: info-hams@ucsd.edu

In article <1991Mar29.005013.29370@ux1.cso.uiuc.edu> phil@ux1.cso.uiuc.edu (Phil Howard KA9WGN) writes:

>Some of the ATV equipment on the market for 23cm uses FM instead of AM or
>VSB as its modulation.

>

>I'd like to know what the merits in doing this are. I note that the ARRL
>bandplan for 23cm includes 5 "channels" for ATV that are only 6 MHz wide.

>

>One maker of FM equipment tells me that the picture is a lot less noisy
>and the bandwidth is the same as AM. I don't see how the picture can be
>a lot less noisy. FM gets its advantages when the deviation is high enough
>that noise will not (at a detectable level) modulate the phase of the
>carrier since the amplitude is constant after limiting.

Once the "FM improvement" threshold is passed, FM is the big winner. For example, on satellite TV, all satellite TV is FM, a C/N ratio of 10 db yields a 42 db signal to noise ratio in the picture. This is considered "broadcast quality". Hint: We rebroadcast our network signal from a satellite distribution system with a C/N of about 10 db on rainy days.

When it's not raining we get a C/N of 40 db, but the signal to noise ratio of the picture only improves to 50 db. So, once the threshold is passed there is little improvement in the picture for huge increases in signal strength. As a point of reference, most broadcast videotape recorders only achieve a 40 to 50 db signal to noise ratio.

>Broadcast FM uses a deviation (peak) of 75 kHz for a signal bandpass that
>is 15 kHz. I don't know how pre-emphasis actually affects this. The spacing
>between stations in the same area is 800 kHz. I take this latter number to
>mean that at 400 kHz from the carrier center, the sidebands are weak enough,
>but still important enough, that sidebands from an equal level (or maybe
>just a little stronger?) signal 800 kHz away can affect the signal. This
>might be the point where filtering in the IF should cut off?

No. These limits were set by the FCC so that really cheap receivers would work reliably. By law an FM station cannot radiate any sidebands outside it's 200 khz channel assignment. In the case of satellite TV, the normal transponder channel is 30 Mhz wide. Increasingly we are using "half transponder" modulation of 15 Mhz so that the other half of the transponder can be used for *another* TV signal. So deviation ratios of 3 are quite usable with FM TV. If you can tolerate a little degradation of the picture, a deviation ratio of one should be practical.

>Another aspect of FM that bothers me a lot is the fact that, as the signal
>gets weaker and weaker, the quality of the resultant signal drops even
>faster. The point at which AM and FM equal out will probably be a noisy
>picture, but below that, FM declines very rapidly. Using techniques such
>as frame averaging on the demodulated video won't work, and applying such
>averaging to the IF before demodulation cannot work because the signal is
>not a truly coherent one, and may never be over some paths. With AM, there
>is at least a reasonable hope of using frame averaging if you have enough
>signal to synchronize to, or another means of synchronizing. One of the things

Once you drop below the FM threshold, the signal does degrade very rapidly. But get just a little above the threshold and the picture gets about as good as it can get. Also, modern phase locked loop detectors can really dig down in the noise. Usable broadcast pictures can be had with a C/N of only 3 db. With a good receiver such as the Harris you'd have a 30 db picture signal to noise ratio with a 3 db C/N, that's good enough for a news live shot. I'd like to see usable AM pictures that weak.

By the way, all these TV news remote trucks you see scurrying about use FM microwave links too. Our trucks use 10 watt transmitters in the 2 Ghz range and we get routine link range of at least 50 miles. The trucks use 50 foot pneumatic masts mounting 14 db gain circular polarized antennas. Note that the 10 watt signal has to travel through about 60 feet of RG9 to reach the antenna. That's about 12 db loss at 2 Ghz.

One final note, I don't know of *any* network affiliate that genlocks his plant to the network signal these days. In the case of NBC affiliates, the network downlink unit contains a frame synchronizer that is referenced to the station's master sync generator. All signals from the plant including the network signal are referenced to that cheap little crystal oscillator. With frame synchronizers cheaper than a decent sync generator these days, most plants have at least a half a dozen synchronizers for retiming incoming feeds from their network, their remote trucks, their helicopters, and any satellite feeds they may be using for their newscast. Nobody would consider genlocking his plant to the unstable signal coming from a news chopper, yet the news producer wants that chopper picture chroma keyed in a window with his on set talent. He also wants to lay fancy news graphic supers over the picture. The frame synchronizer comes to the rescue. Most frame synchronizers will freeze the last good frame they receive until another good one comes along.

A recent article about using TV signals to achieve an atomic clock accuracy reference that appeared in 73 Magazine really made me laugh. I doubt that there is a broadcaster left in the country that doesn't pass his network signal through a frame synchronizer when it enters his plant. Thus your "atomic clock" reference is really a crystal oscillator that probably isn't even in an oven. Indeed the NBC network routinely does live satellite switches inside their programming. From one frame to the next your picture may be coming from the East coast or the West coast. They count on the frame synchronizer in the local affiliate plants to keep the picture from rolling on your set at home.

Gary KE4ZV

Date: 1 Apr 91 06:01:47 GMT
From: swrinde!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!tut.cis.ohio-state.edu!n8emr!@ucsd.edu
Subject: DX BULLETIN 15 ARLD015
To: info-hams@ucsd.edu

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| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
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ZCZC AG82
QST DE W1AW
DX BULLETIN 15 ARLD015
FROM ARRL HEADQUARTERS NEWINGTON CT
MARCH 29, 1991
RELAYED BY KB8NW/OBS & BARF-80 BBS

TO ALL RADIO AMATEURS

Thanks to Bob Dow, WB2CJL, with the Western New York DX Association and Paul, KB1BE, with the Connecticut DX Association for the following DX information.

FROM THE DXCC DESK. The documentation for the recent ET2A operation has been received and accepted by DXCC. QSL cards will be accepted as soon as they are received.

BANGLADESH, S2. Jim Smith, VK9NS, is NOT operating as S21U. The station found on 21255 KHz at 1730 UTC and working Europe was not Jim according to Kirsti, VK9NL. Hopefully, Jim will be on Saturday or Monday if he receives his official license, according to the latest FAX from Kirsti.

KAMPUCHEA, XU. Boo and Phet, XU1DK, are now active on RTTY. Look for them on 21088 KHz around 1300 to 1400 UTC. They have no commercial power at their site and have been using power from an old generator that is working at night local XU time. Their typing maybe slow, but they will QSO with USA stations when conditions permit. There is no postal system in XU land so log info must be passed by hand to get to Japan. QSL cards will be slow, so please be patient. QSL to PO Box 80, KOUJIMACHI, Tokyo, Japan. Do not send cards to TORU, JG1RVN.

MARIANA ISLANDS (SAIPAN), KH0. Look for JA1PGY. During his vacation, he will be operating from Saipan as KH0/JA1PGY. He will be QRV around April 26 to 28. He will have RTTY capability and will be operating with a Zepp halfwave antenna. WARC band operations will be attempted.

BAHRAIN, A9. Rich, KI3V, keeps the DX crowd busy with his operation on CW and SSB on all bands. He will be there for two more weeks. QSL via his home call.

ST. PAUL ISLAND, CY9. QSL cards for the CY9CF operation are still in the hands of the printers. They will be shipped to FP5DX, around the first week in April.

BHUTAN, A51. Jim, VK9NS, and Kirsti, VK9NL are still planning to go to Bhutan in early May for two weeks. Equipment will be shipped earlier as they will bring a beam plus a linear amplifier.

NEPAL, 9N1. 9N1MM has been heard and worked in Western New York on 20 meter cw.

YEMEN, 701. Gabi, DL2BCH, now has the computer disks containing the

logs for the 701AA operation. It will take a few days to change the computer format and then the cards will be answered.

NOTE 1. WB2WOW, QSL manager for ET2A and ST0DX became a silent key on Saturday, March 23. QSL to the same address as cards will be handled by Howard, WA2NHA.

Good Luck on DX de KB8NW/OBS

Date: 1 Apr 91 08:30:24 GMT
From: sdd.hp.com!usc!neuro.usc.edu!demikhov@ucsd.edu
Subject: Looking for info on a specific freq. band
To: info-hams@ucsd.edu

In article <2412@stsci.EDU> tullos@stsci.EDU (Calvin Tullos) writes:
>I'm looking for information on who might be broadcasting
>between 174 MHZ and 199 MHZ..... vs. wireless microphone.

174-216 MHz Television Channels 7-13 (6 Mhz of spectrum for each channel)

Date: 1 Apr 91 06:00:47 GMT
From: swrinde!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!tut.cis.ohio-state.edu!n8emr!root@ucsd.edu
Subject: N8EMR_BBS_INFO
To: info-hams@ucsd.edu

The N8EMR Ham bbs is online to serve the needs of the amateur radio operators..

1/26/91 The BBS is now running on the 386 machine.

12/5/90 Columbus and HBBS are now available via PC pursuit dialout.

7/15/90: This BBS is now part of the AMSAT BBS network..

HOW TO ACCESS THE N8EMR HAM RADIO TELEPHONE BBS !!!

System Name: N8EMR
Phone: 614-895-2553
Login: hbbs
Data Settings: 8 Bits, NO Parity, 1 Stop Bit
Times: 24hrs
IP Address: 44.70.0.1

Amateur radio anonymous ftp access is available via the ohio
netrom/ip network. CMHIP is the Netrom node Id and is known
by most of the nodes in ohio. (its slow but it works)
This is only via the ohio packet network. This system
is not available via the "INTERNET".

To access the system via the dialup, at the login prompt type hbbs
(lower case only), you will then enter the BBS program. Follow the
directions from the bbs prompts.

I attempt to keep the latest and greatest HAM software on-line, and encourage
all to upload Here is some of software that is available for downloading.

KA9Q TCP/IP Software for various computers, PC,atari-st,Mac, amgia, unix
MORSE CODE Tutors
Modifications for HAM Rigs and Scanners
DX and contesting programs
Various amateur Newsletters
Packet Terminal programs
AMSAT news and satellite keplerian elements

Files and messages areas for AMSAT, GENERAL topics, PACKET,
KA9Q, MODS to various rigs, TVRO,SCANNER and SWL.
Many mb of of file of interest to the radio operator.

Question or comments to

Gary W. Sanders (gws@n8emr or ...!osu-cis!n8emr!gws), 72277,1325
N8EMR @ W8CQK (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS (1200/2400/9600/V.32/PEP/MNP=L5) 614-895-2553
Voice: 614-895-2552 (eves/weekends)

Date: 1 Apr 91 06:01:26 GMT
From: swrinde!zaphod.mps.ohio-state.edu!tut.cis.ohio-state.edu!n8emr!@ucsd.edu
Subject: SPECIAL BULLETIN 6 ARLX006
To: info-hams@ucsd.edu

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| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 1200/2400/9600/V.32/PEP/MNP5 |
=====

ZCZC AX28
QST DE W1AW
SPECIAL BULLETIN 6 ARLX006
FROM ARRL HEADQUARTERS NEWINGTON CT

MARCH 28, 1991
RELAYED BY KB8NW/OBS & BARF-80 BBS
TO ALL RADIO AMATEURS

NASA has announced that the all ham crew of STS-37 will fly aboard Atlantis on April 5 at 1418 UTC. The packet callsign to be used is KB5AWP, transmitting on 145.51 MHz. Ground stations transmit on 144.91. Transmit only when the shuttle is in your range. Listen for bulletins concerning random voice and SSTV times from the Goddard ARC, WA3NAN, on 3860, 7185, 14295 and 21395 KHz.

Date: 1 Apr 91 05:52:04 GMT
From: suns.UMD.EDU!jph@umd5.umd.edu
To: info-hams@ucsd.edu

References <9103192122.AA01566@ucsd.edu>, <andreap.669677698@s.ms.uky.edu>,
<1991Mar31.223819.22840@usenet.ins.cwru.edu>
Reply-To : jph@suns.UMD.EDU
Subject : Re: First No-code Tech?

In article <1991Mar31.223819.22840@usenet.ins.cwru.edu> rab@hal.CWRU.Edu (Roger Bielefeld) writes:

>K1MAN just broadcast a report that the first no-code tech license
>was issued to Robert Williams of Annapolis, Maryland. He was issued
>the call N3IFY.

>

>Roger N8NNK/AE

>--

>Roger Bielefeld Case Western Reserve University
>rab@hal.cwru.edu Cleveland, Ohio USA

Well, I got mine in the mail over a week ago. It is dated 19 March '91. The FCC was faster than I expected. (I took the test 16 Feb 91.) We're already out there.

Pat Harrington N3IZV

End of Info-Hams Digest
